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Selected List of Publications
WESTERN REGIONAL RESEARCH LABORATORY, ALBANY, CALIFORNIA
Bureau of Agricultural and Industrial Chemistry
Agricultural Research Administration
U. S. Department of Agriculture

The Information sheets are available on request. A limited number of bulletins and reprints of some of the journal articles are also available. Those not available are marked with an asterisk (*). Those listed for the first time are preceded by a plus (+).

DEHYDRATION OF FOODS

Information sheets on dehydration (mimeographed):

- 1 Brine peeling of various root vegetables. 1943. Revised 1944.
- 7 Dehydrated onions. 1943.
- 8 Dehydrated sweetpotatoes. 1943.
- 9 Dehydrated white potatoes. 1943.
- 15 Bin-type finishing driers in vegetable dehydration. 1943. Revised 1944.
- 16 Production of major fruits in the United States. 1943.
- 18 Dehydrated cabbage and celery. 1943.
- 23 Analysis of processing costs in vegetable dehydration. 1943.
- 31 Application of drying rate nomographs to the estimation of tunnel-dehydrator drying capacity.
 - I Riced white potatoes. 1943.
 - II Blanched sweet corn. 1943.
 - III White potato strips--vertical air flow. 1944.
 - IV Shredded cabbage. 1944.
 - V Onion slices. 1944.
 - +VI Sweetpotato strips. 1944.
- 35 Determination of ascorbic acid in fresh, frozen, and dehydrated foods. 1943.
- 39 Cost accounting for vegetable dehydration plants. 1944.
- +47 The sampling and analysis of gases in cans of dehydrated vegetables. 1944.
- +58 New peroxidase test procedure for dehydrated potatoes to indicate adequacy of blanching. 1944.

Information sheets on dehydration (unnumbered, mimeographed):

- The waste disposal problem in vegetable dehydration.
- Sources of preparation equipment for vegetables for dehydration.
- Manufacturers of drying equipment for food and allied products.

Dehydrator designs:

- Type A - Transverse-flow cabinet dehydrator.
- Type C - 35-ton center-exhaust tunnel dehydrator with recirculation.
- Type I - Steam-heated cabinet dehydrator (single-truck unit).
- Type J - Steam-heated cabinet dehydrator (double-truck unit).
- Type K - Coal-burning cabinet dehydrator (single-truck unit).
- Type L - Coal-burning cabinet dehydrator (double-truck unit).
- Type N - Vegetable dehydrator, tunnel type, two-stage.
- Type O - Cabinet dehydrator with cabinet blancher and bin finisher.
- Types P, Q - Counterflow tunnel dehydrators.

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- Dwg. C-76 - Onion bin drier.
- Dwg. D-96 - Multibin finisher.
- Dwgs. C-112, 113 - Laboratory experimental cabinet drier.
- Dwg. C-115 - Steam heating arrangements for tunnel dehydrators.
- Dwg. A-118 - Friction stop for trucks.

Preparation-equipment designs:

- Dwg. C-79A - Radiant-heat oil-fired root peeler.
- Dwg. C-80A - Appurtenances for radiant-heat root peeler.
- Dwg. D-101 - Continuous steam blancher, Model B.
- Dwg. D-108 - Tray-loading and de-traying table.
- Dwg. D-109 - Brine peeler, No. 1.
- Dwg. D-111 - Brine peeler, No. 2.
- Dwg. D-116 - Picking and trimming table.

Bulletins on dehydration;

Commercial dehydration of vegetables and fruits in wartime. U. S. Dept. Agr.
Misc. Pub. 524. 29 pages. 1943.

+Vegetable and fruit dehydration. A manual for plant operators. U. S. Dept.
Agr. Misc. Pub. 540. 218 pages. 1944.

Journal articles on dehydration:

- E. A. Beavens. Cabinet dehydrators suited to small-scale operations. Food
Indus.: I. 16(1):70-72, 116. 1944.
II. 16(2):90-92, 134. 1944.
III. 16(3):75, 135-136. 1944.
- *E. A. Beavens. Food dehydration--a revived industry. Rural New Yorker.
Jan., 1943.
- *E. A. Beavens. Recent advances in methods of food dehydration. Rural New
Yorker. April, 1943.
- A. H. Brown and P. W. Kilpatrick. Drying characteristics of vegetables--riced
potatoes. Trans. Amer. Soc. Mech. Engin., pp. 837-842. Nov., 1943.
- M. E. Davis and L. B. Howard. Effects of varying conditions on the reconstitu-
tion of dehydrated vegetables. Proc. Inst. Food Technol., pp. 143-155. 1943.
- *W. B. Davis. Quantitative field test for estimation of peroxidase. Indus.
and Engin. Chem., Analyt. Ed. 14:952-953. 1942.
- +F. DeEds. Dehydrated food in war and peace. Calif. and Western Med.
60(5):1-12. 1944.
- H. J. Dutton, G. F. Bailey, and E. Kohake. Dehydrated spinach. Changes in
color and pigments during processing and storage. Indus. and Engin. Chem.
35:1173-1177. 1943.

- A. A. Klose, G. I. Jones, and H. L. Fevold. Vitamin content of spray-dried whole egg. *Indus. and Engin. Chem.* 35:1203-1205. 1943.
- *H. J. Loeffler and J. D. Ponting. Ascorbic acid. Rapid determination in fresh, frozen, or dehydrated fruits and vegetables. *Indus. and Engin. Chem., Analyt. Ed.* 14:846-849. 1942.
- G. Mackinney and L. B. Howard. Sulphite retards deterioration of dehydrated cabbage shreds. *Food Indus.* 16(5):355-356, 406-409. 1944.
- B. Makower and S. Myers. A new method for the determination of moisture in dehydrated vegetables. *Proc. Inst. Food Technol.*, pp. 156-164. 1943.
- *B. Makower and G. L. Dehority. Equilibrium moisture content of dehydrated vegetables. *Indus. and Engin. Chem.* 35:193-197. 1943.
- *J. P. Nielsen. Rapid determination of starch in vegetables. *Indus. and Engin. Chem., Analyt. Ed.* 15:176-179. 1943.
- *A. L. Pitman, W. Rabak, and H. Yee. Packaging requirements for dehydrated vegetables. *Food Indus.* 15(1):49-52, 104. 1943.
- J. D. Ponting. Extraction of ascorbic acid from plant materials. Relative suitability of various acids. *Indus. and Engin. Chem., Analyt. Ed.* 15:389-391. 1943.
- A. N. Prater, C. M. Johnson, M. F. Pool, and G. Mackinney. Determination of sulfur dioxide in dehydrated foods. *Indus. and Engin. Chem., Analyt. Ed.* 16:153-157. 1944.
- W. D. Ramage and C. L. Rasmussen. This is what it costs to dehydrate vegetables. I-Buildings, plant layout, capital investment. *Food Indus.* 15(7):64-71, 137, 138. 1943.
- IIA-Processing costs--labor, raw material. 15(8):66-67, 118, 119. 1943.
- IIB-Processing costs--summarized. 15(9):75-77, 126. 1943.
- R. M. Reeve. Facts of vegetable dehydration revealed by microscope. *Food Indus.* 14(12):51-54, 107-108. 1942.
- R. M. Reeve. A microscopic study of physical changes in carrots and potatoes during dehydration. *Food Res.* 8:128-136. 1943.
- R. M. Reeve. Microscopy of oils and carotene bodies in dehydrated carrots. *Food Res.* 8:137-145. 1943.
- R. M. Reeve. Changes in tissue composition in dehydration of certain fleshy root vegetables. *Food Res.* 8:146-155. 1943.
- D. G. Sorber. The relation of the sulfur dioxide and total sulfur contents of dried apricots to color change during storage. *Fruit Prod. Jour.* 23(8):234-237, 251. 1944.

- *W. B. Van Arsdel. Tunnel dehydrators and their use in vegetable dehydration. Food Indus.: I. 14(10):43-46, 106. 1942.
 - II. 14(11):47-50, 103. 1942.
 - III. 14(12):47-50, 108-109. 1942.
- *W. B. Van Arsdel. Some engineering problems of the new vegetable dehydration industry. Heating, Piping and Air Conditioning 15:157-160. 1943.
- *W. B. Van Arsdel. Tray and tunnel drying methods and equipment. Proc. Inst. Food Technol., pp. 45-51. 1943.
- *R. H. Wilson, J. O. Thomas, and F. DeEds. Vitamin A value of fresh and dehydrated carrots. Fruit Prod. Jour. 22(1):15-17. 1942.

FREEZING PRESERVATION OF FOODS

Information sheets on frozen foods (mimeographed):

- 10 Frozen pork and beans of the tomato sauce type. 1943.
- 34 A test for adequacy of blanching in frozen vegetables. 1943.
- 35 Determination of ascorbic acid in fresh, frozen, and dehydrated foods. 1943.
- 36 Freezing preservation of pumpkin pie stock. 1943.
- 40 Velva Fruit--a new frozen fruit dessert. 1944.
- 46 Selected bibliography on freezing preservation of fruits and vegetables, 1920-43. 1944.
- +53 Home preparation of Velva Fruit--a new frozen fruit dessert. 1944.
- +57 Commercial preparation and freezing preservation of sliced apples. 1944.
- Factors that affect quality in the freezing preservation of peas. 1944.

Bulletins on frozen foods:

- H. C. Diehl, E. H. Wiegand, and J. A. Berry. Preservation of fruits and vegetables by freezing in the Pacific Northwest. U. S. Dept. Agr. MC-53. 1939.
- E. L. Overholser, J. A. Berry, H. C. Diehl, M. Boggs, and E. N. Todhunter. Locker freezing of fruits and vegetables. Wash. Agr. Expt. Sta. Pop. Bul. 161. 1941.

How to prepare vegetables and fruits for freezing. U. S. Dept. Agr. AWI-100. 1944.

Journal articles on frozen foods:

- +Freezing tomatoes and tomato juice. Food Indus. 16(8):632-633. 1944.
- *J. A. Berry. Preserving fruits and vegetables in frozen food lockers. West. Canner and Packer 34(4):50-52. 1942.
- *J. A. Berry. The fewer the bacteria, the better the frozen pack. Canner 94(4):13-14. 1941.
- *J. A. Berry. Frozen foods have good health record. Quick Frozen Foods 6(3):46. 1943.

- M. Boggs, H. Campbell, and C. D. Schwartze. Factors influencing the texture of peas preserved by freezing. Food Res.: I. 7(4):272-287. 1942.
II. 8(6):502-515. 1943.
- H. Campbell. Temperature and tenderometer. How temperature may affect tenderometer value for peas. West. Canner and Packer 34(2):39-40. 1942.
- H. Campbell. Notes on the tenderometer. West. Canner and Packer 31(6):113-114. 1939.
- H. Campbell. Scalding of cut corn for freezing. West. Canner and Packer 32(9):51-53. 1940.
- H. Campbell. The splitting of shelled peas intended for freezing. West. Canner and Packer 32(8):49-50. 1940.
- H. Campbell and H. C. Diehl. Quality in frozen pack peas. West. Canner and Packer: 32(10):48-50. 1940.
32(11):51-53. 1940.
- *H. C. Diehl. Can frozen foods help win the war and write the peace? West. Frozen Foods 3(4):5-6, 8, 10. 1942.
- *H. C. Diehl. Technological aspects of locker plant industries. Quick Frozen Foods: I. 3(7):16-17, 42. 1941.
II. 3(8):24, 37-38. 1941.
- H. C. Diehl. Report of research in freezing preservation of fruits, vegetables, and poultry products. Proc. Assoc. Refrig. Warehouses. 1943. (Mimeographed copies available.)
- *H. C. Diehl and J. A. Berry. Freezing and storage of frozen-pack fruits and vegetables. Spec. Bul. of Assoc. Refrig. Warehouses, No. 2. 1941.
- H. C. Diehl and W. Rabak. Packaging of frozen foods under war conditions. Proc. Inst. Food Technol., pp. 117-120. 1942.
- *H. J. Loeffler and J. D. Ponting. Ascorbic acid. Rapid determination in fresh, frozen, or dehydrated fruits and vegetables. Indus. and Engin. Chem., Analyt. Ed. 14:846-849. 1942.
- +M. P. Masure and H. Campbell. Rapid estimation of peroxidase in vegetable extracts--an index of blanching adequacy for frozen vegetables. Fruit Prod. Jour. 23:369-374, 383. 1944.
- J. P. Nielsen, E. R. Wolford, and H. Campbell. Delay affects frozen pea quality. West. Canner and Packer 35(6):47-48. 1943.
- J. P. Nielsen, H. Campbell, and M. Boggs. Tenderizing vegetables for freezing by blanching in sodium hexametaphosphate solution. West. Canner and Packer 35(6):49. 1943.
- *J. P. Nielsen. Rapid determination of starch in vegetables. Indus. and Engin. Chem., Analyt. Ed. 15:176-179. 1943.

- J. D. Ponting. Extraction of ascorbic acid from plant materials. Relative suitability of various acids. Indus. and Engin. Chem., Analyt. Ed. 15:389-391. 1943.
- W. Rabak. Are your cartons moisture-proof? West. Canner and Packer 33(11):52-55. 1941.
- W. Rabak and G. L. Dehority. Effects of heat sealing on water-vapor permeabilities of coated cellophanes. Modern Packaging 17(7):161-163, 220. 1944.
- W. Rabak and H. C. Diehl. "Fondant-like" formation on fruits caused by crystallization of sucrose. West. Canner and Packer 36(4):55. 1944.
- *D. G. Sorber. Frozen fruits provide a variety of flavors and added food value for ice cream. Ice Cream Field Year Book. 1942.
- *D. G. Sorber. Frozen sliced, crushed, and pureed fruits.
Canner: I. 94(7):16-17, 36. 1942.
II. 94(8):18, 20, 22, 32. 1942.
- *D. G. Sorber. Freezing baked beans and other prepared foods. Quick Frozen Foods 5(8):18-19, 24. 1943.
- *D. G. Sorber. Freezing storage prolongs packing season. Quick Frozen Foods 5(9):16, 26. 1943.
- *+D. G. Sorber. An analysis of the frozen fruit industry in Utah. Farm & Home Science 5(2):1, 8-10. 1944.
- E. R. Wolford. Direct microscopic method to estimate sanitary history of frozen pack peas. West. Canner and Packer 35(13):58. 1943.

OTHER TECHNICAL SUBJECTS

Information sheets (mimeographed):

- 14 Recovery of tartrates from grape wastes. 1943.
- 28 Preparation of a liquid apple pectin concentrate. 1943.

Journal articles:

- A. A. Andersen. Recovery of agar from used media. Jour. Bact. 46:396-397. 1943.
- E. Bickoff and K. T. Williams. Determination of carotene in vegetable oils without saponification. Indus. and Engin. Chem., Analyt. Ed. 15:266-268. 1943.
- E. Bickoff and K. T. Williams. Stability of carotene added to solid carriers. Indus. and Engin. Chem. 36:320-323. 1944.
- J. F. Carson, S. W. Waisbrot, and F. T. Jones. A new form of crystalline xylitol. Jour. Amer. Chem. Soc. 65:1777. 1943.
- K. P. Dimick. A quantitative method for the determination of tyrothricin. Jour. Biol. Chem. 149:387-393. 1943.

- H. J. Dutton and G. F. Bailey. Modification of Cenco spectrophotometer, permitting measurements of reflection and fluorescence spectra. Indus. and Engin. Chem., Analyt. Ed. 15:275-277. 1943.
- +H. J. Dutton. Adsorption analysis of colorless compounds: Method and application to the resolution of stearic and oleic acids. Jour. Phys. Chem. 48:179-186. 1944.
- D. W. Elam, H. M. Preusser, and R. L. Page. New plasticizers for vinyl resins and cellulose esters. Modern Plastics 20(9):95-97, 146-150. 1943.
- H. Fraenkel-Conrat. Effect of light on the Van Slyke method for the determination of amino groups. Jour. Biol. Chem. 148:453-454. 1943.
- H. Fraenkel-Conrat. Effect of acylating agents on the sulfhydryl groups of crystalline egg albumin. Jour. Biol. Chem. 152:385-389. 1944.
- +H. Fraenkel-Conrat. The use of dyes for the determination of acid and basic groups in proteins. Jour. Biol. Chem. 154:239-246. 1944.
- +H. Fraenkel-Conrat. The action of 1,2-epoxides on proteins. Jour. Biol. Chem. 154:227-238. 1944.
- +H. Fraenkel-Conrat and H. S. Olcott. Esterification of fatty and amino acids with 1,2-epoxides in aqueous solution. Jour. Amer. Chem. Soc. 66:1420. 1944.
- +H. Fraenkel-Conrat and H. S. Olcott. o-Biphenyl isocyanate, o-Bicyclohexyl isocyanate, N,N'-Di-o-biphenyl urea, N,N'-Di-o-bicyclohexyl urea. Jour. Amer. Chem. Soc. 66:845. 1944.
- H. Humfeld and I. C. Feustel. Utilization of asparagus juice in microbiological culture media. Proc. Soc. Exp. Biol. and Med. 54:232-235. 1943.
- +E. F. Jansen, S. W. Waisbrot, and E. Rietz. Errors in the Zeisel methoxyl values for pectin due to retained alcohol. Indus. and Engin. Chem. 16:523-526. 1944.
- +E. F. Jansen and D. J. Hirschmann. Subtilin--an antibacterial product of Bacillus subtilis. Arch. Biochem. 4:297-309. 1944.
- *C. R. Jeppesen and E. J. Eastmond. Spectroscopic determination of lead in pectinous materials. Bul. Amer. Phys. Soc. 18(4):6, and Phys. Rev. 64:188. 1943.
- +C. R. Jeppesen, E. J. Eastmond, and H. G. Logan. Spectrographic determination of lead in pectinous materials. Jour. Optical Soc. Amer. 34:313-318. 1944.
- C. B. Jones and D. K. Mechem. The dispersion of keratins:
I. Studies on the dispersion and degradation of certain keratins by sodium sulfide. Arch. Biochem. 2:209-223. 1943.
II. Studies on the dispersion of keratins by reduction in neutral solutions of protein denaturants. Arch. Biochem. 3:193-202. 1943.

- * E. B. Kester and G. R. Van Atta. Minor oil-bearing crops of the United States. Oil and Soap 19:119-125. 1942.
- E. B. Kester, C. J. Gaiser, and M. E. Lazar. Glycidyl esters of aliphatic acids. Jour. Organic Chem. 8:550-556. 1943.
- +A. A. Klose and H. L. Fevold. Methionine deficiency in yeast protein. Proc. Soc. Expt. Biol. and Med. 56:98-101. 1944.
- J. C. Lewis. A lactobacillus assay method for p-aminobenzoic acid. Jour. Biol. Chem. 146:441-450. 1942.
- +J. C. Lewis. Relationship of iron nutrition to the synthesis of vitamins by *Torulopsis utilis*. Arch. Biochem. 4:217-228. 1944.
- +J. C. Lewis, J. J. Stubbs, and W. M. Noble. Vitamin synthesis by torula yeast. Arch. Biochem. 4:389-401. 1944.
- H. Lineweaver and T. L. Swenson. Enzyme action in slaughtered meat animals. Proc. Ann. Meet. Amer. Inst. Refrig. pp. 94-103. 1941.
- H. Lineweaver and G. A. Ballou. Properties of alfalfa pectinesterase (pectase) (abstract). Fed. Amer. Socs. Expt. Biol. Proc. 2:66. 1943.
- H. Lotzkar and W. D. Maclay. Pectin as an emulsifying agent. Comparative efficiencies of pectin, tragacanth, karaya, and acacia. Indus. and Engin. Chem. 35:1294-1297. 1943.
- H. P. Lundgren, D. W. Elam, and R. A. O'Connell. Electrophoretic study of the action of alkylbenzene sulfonate detergents on egg albumin. Jour. Biol. Chem. 149:183-193. 1943.
- H. P. Lundgren. The formation of fibers from non-fibrous native proteins. Jour. Amer. Chem. Soc. 63:2854-2855. 1941.
- H. P. Lundgren and R. A. O'Connell. Artificial fibers from corpuscular and fibrous proteins. Indus. and Engin. Chem. 36:370-374. 1944.
- +W. D. Maclay, A. D. Shepherd, and H. Lotzkar. Use of pectin in pharmaceutical pastes and ointments. Jour. Amer. Pharm. Assoc. 33(4):113. 1944.
- R. M. McCready, H. S. Owens, and W. D. Maclay. The use of fibrous sodium pectate as a substitute for agar in bacteriological gels. Science 97(2523): 428. 1943.
- D. K. Mecham. The determination of cysteine and cystine by Vassel's method. Jour. Biol. Chem. 151:643-645. 1943.
- R. C. Merrill, Jr. Determining the mechanical stability of emulsions--a rapid quantitative method. Indus. and Engin. Chem., Analyt. Ed. 15:743-746. 1943.
- +R. C. Merrill, Jr. and F. T. Moffett. Foaming properties of soap solutions. Oil and Soap 21:170-175. 1944.

- H. S. Olcott. Cystine content and enzyme digestibility of powdered hoof proteins. *Proc. Soc. Expt. Biol. and Med.* 54:219-220. 1943.
- H. S. Olcott. Monothioglycol. *Science* 96:454. 1942.
- +H. S. Olcott. A method for the determination of glutamic acid in proteins. *Jour. Biol. Chem.* 153:71-82. 1944.
- +H. S. Olcott. Outlook for wheat gluten as an industrial material. *Food Indus.* 16:541,576-578. 1944.
- H. S. Olcott, L. A. Sapirstein, and M. J. Blish. Stability of wheat gluten dispersions toward reducing agents in the presence and absence of a gluten proteinase. *Cereal Chem.* 20:87-97. 1943.
- H. S. Olcott and M. J. Blish. Wheat gluten as an industrial protein. *Amer. Assoc. Cereal Chem. Trans.* 2(2):20-25. 1944.
- +H. S. Owens, H. Lotzkar, R. C. Merrill, and M. Peterson. Viscosities of pectin solutions. *Jour. Amer. Chem. Soc.* 66:1178-1182. 1944.
- K. J. Palmer and J. A. Galvin. The molecular structure of fibers made from native egg albumin. *Jour. Amer. Chem. Soc.* 65:2187-2190. 1943.
- *K. J. Palmer. The structure of an egg albumin-detergent complex. *Jour. Phys. Chem.* 48:12-21. 1944.
- E. F. Potter and C. B. Jones. Separation and determination of protein sulfur, sulfide sulfur, and other sulfur in sodium sulfide dispersions of keratins. *Indus. and Engin. Chem., Analyt. Ed.* 15:15-17. 1943.
- *A. N. Prater, E. J. Cowles, and R. P. Straka. Determination of ammonia by a diffusion method. *Indus. and Engin. Chem., Analyt. Ed.* 14:703-705. 1942.
- E. Rietz and W. D. Maclay. Preparation of d-galacturonic acid from pectin. *Jour. Amer. Chem. Soc.* 65:1242. 1943.
- T. M. Shaw. A method of minimizing supercooling and its application in the determination of freezing points from dielectric constant measurements. *Rev. Sci. Instruments* 13:2-5. 1942.
- T. M. Shaw. The elimination of errors due to electrode polarization in measurement of the dielectric constants of electrolytes. *Jour. Chem. Physics* 10:609-617. 1942.
- +J. J. Stubbs, W. M. Noble, and J. C. Lewis. Production of torula yeast from fruit juices. *Food Indus.* 16(9):694-698, 731. 1944.
- T. L. Swenson and H. Humfeld. Production of active and inactive catalase by *Proteus vulgaris*. *Jour. Agr. Res.* 65:391-403. 1942.

- G. R. Van Atta and W. C. Dietrich. Valencia orange-seed oil. Oil and Soap 21(1):19-22. 1944.
- K. T. Williams, E. Bickoff, and W. Van Sandt. Carotene I. Preliminary report on diphenylamine as a stabilizer for carotene. Science 97(2508):96-98. 1943.
- K. T. Williams and C. M. Johnson. The determination of soluble pectin and pectic acid by electrodeposition. Indus. and Engin. Chem., Analyt. Ed. 16:23-25. 1944.
- +K. T. Williams, E. Bickoff, and B. Lowrimore. Effect of antioxidants, individually and in combination, on stability of carotene in cottonseed oil. Oil and Soap 21(6):161-164. 1944.

Enzyme Research Laboratory, Western Regional Research Laboratory, Albany, California.

Information sheet (mimeographed):

- 27 Separation of diastase and protein from wheat through the action of sulphites. 1943.

Journal articles:

- A. K. Balls, H. Lineweaver, and R. R. Thompson. Crystalline papain. Science 86:379. 1937.
- A. K. Balls and S. R. Hoover. The milk-clotting action of papain. Jour. Biol. Chem. 121:737-745. 1937.
- *A. K. Balls and H. Lineweaver. Isolation and properties of crystalline papain. Jour. Biol. Chem. 130:669-686. 1939.
- A. K. Balls and W. S. Hale. A sulphur-bearing constituent of the petroleum ether extract of wheat flour. Cereal Chem. 17:243-245. 1940.
- A. K. Balls and W. S. Hale. The effect of ethylene on freshly harvested wheat. Cereal Chem. 17:490-494. 1940.
- A. K. Balls, R. R. Thompson, and W. W. Jones. Crude papain. Indus. and Engin. Chem. 32:1144-1147. 1940.
- A. K. Balls, H. Lineweaver, and S. Schwimmer. Drying of papaya latex--stability of papain. Indus. and Engin. Chem. 32:1277-1279. 1940.
- A. K. Balls and F. E. Arana. Recent observations on the curing of vanilla beans in Puerto Rico. Proc. 8th Amer. Sci. Cong. 7:187-191. 1940.
- A. K. Balls and F. E. Arana. The curing of vanilla. Indus. and Engin. Chem. 33:1073-1075. 1941; Revista de Agricultura, Industria & Comercio de Puerto Rico 34(20):167-172. 1942.
- A. K. Balls, R. R. Thompson, and M. W. Kies. Bromelin. Properties and commercial production. Indus. and Engin. Chem. 33:950-953. 1941.

- A. K. Balls, W. S. Hale, and T. H. Harris. A crystalline protein obtained from a lipoprotein of wheat flour. Cereal Chem. 19:279-288. 1942.
- A. K. Balls. A crystalline sulphur-protein from wheat. Jour. Wash. Acad. Sci. 32:132-137. 1942.
- A. K. Balls, W. S. Hale, and T. H. Harris. Further observation on a crystalline wheat protein. Cereal Chem. 19:840-844. 1942.
- A. K. Balls, B. Axelrod, and M. W. Kies. Soybean lipoxidase. Jour. Biol. Chem. 149(2):491-504. 1943.
- A. K. Balls and I. W. Tucker. Extraction of diastase and recovery of protein from wheat. Fruit Prod. Jour. 23(1):15. 1943.
- A. K. Balls and T. H. Harris. Inhibitory effect of a protamine from wheat flour on the fermentation of wheat mash. Cereal Chem. 21(1):74-79. 1944.
- A. K. Balls. Desmo enzymes. Vortex 4(10):338-340, 342-344. 1943.
- +A. K. Balls. Control of enzymatic action in foods. Proc. Inst. Food Technol. pp. 165-169. 1943.
- E. J. Coulson, T. H. Harris, and B. Axelrod. Effect on small laboratory animals of the injection of the crystalline hydrochloride of a sulphur protein from wheat flour. Cereal Chem. 19:301-307. 1942.
- G. Y. Gottschall. The activation of papain during digestion of meat. Food Res. 9:6-10. 1944.
- W. S. Hale. The proteinase in wheat flour. Cereal Chem. 16:695-702. 1939.
- H. Lineweaver and S. R. Hoover. A comparison of the action of crystalline papain on native and urea denatured proteins. Jour. Biol. Chem. 137:325-335. 1941.
- +S. Schwimmer. Comparison of crude and purified preparations of a leucylpeptidase associated with beef muscle. Jour. Biol. Chem. 154(2):361. 1944.
- +S. Schwimmer. Regeneration of heat inactivated peroxidase. Jour. Biol. Chem. 154(2):487. 1944.
- L. S. Stuart and T. H. Harris. Bactericidal and fungicidal properties of a crystalline protein isolated from unbleached wheat flour. Cereal Chem. 19:288-300. 1942.

Laboratory of Fruit and Vegetable Chemistry, 148 South Mission Road, Los Angeles 33, California. (Only recent publications of this laboratory are included here or elsewhere in this list. A complete list can be obtained from the address given above.)

- W. B. Davis. Distribution and preparation of citrus peroxidase. Amer. Jour. Bot. 29:252-254. 1942.

- W. B. Davis. The circular revolving brush as a tissue disintegrator. *Plant Physiol.* 17(1):145-146. 1942.
- C. W. Eddy. Absorption rate of oxygen by orange juice. *Indus. and Engin. Chem.* 28:480. 1936.
- H. J. Loeffler. Determination of air in citrus juices. *Indus. and Engin. Chem. Analyt. Ed.* 12:533. 1940.
- *H. J. Loeffler. Processing of orange juice. *Indus. and Engin. Chem.* 55:1308. 1941.
- H. J. Loeffler. Maintenance of cloud in citrus juices. *Proc. Inst. Food Technol.*, pp. 29-36. 1941.
- Pharmacological Laboratory, former address: Stanford University, San Francisco 15, California. Present address: Western Regional Research Laboratory, Albany, California. (Recent publications.)
- A. M. Ambrose, F. DeEds, and A. J. Cox, Jr. The effect of high fat diet on chronic toxicity of derris and rotenone. *Jour. Pharmacol. and Expt. Ther.* 78:90-92. 1943.
- A. M. Ambrose, F. DeEds, and J. B. McNaught. Chronic toxicity of derris. *Indus. and Engin. Chem.* 34:684-689. 1942.
- F. DeEds. The toxicity of fluorine in dicalcium phosphate. *Amer. Jour. Med. Sci.* 203:678-692. 1942.
- F. DeEds. Protein-ascorbic acid complex in carrots. *Food Res.* 8:275-279. 1943.
- +F. DeEds. Dehydrated food in war and peace. *Calif. and Western Med.* 60(5): 1-12. 1944.
- F. DeEds and J. O. Thomas. Studies on phenothiazine. XI. The excretion of phenothiazone. *Jour. Parasitol.* 28:363-367. 1942.
- *R. H. Wilson, J. O. Thomas, and F. DeEds. Vitamin A value of fresh and dehydrated carrots. *Fruit Prod. Jour.* 22(1):15-17. 1942.
- Fruit and Vegetable Byproducts Laboratory, College Station, Box 8, Pullman, Washington.
- C. W. Eddy and M. K. Veldhuis. New--nectar made from fresh prunes. *Food Indus.* 14(3):46-47. 1942.
- A. M. Neubert. Effect of filtration on appearance, viscosity and alcohol-insoluble fractions of apple juice. *Food Res.* 8(6):477-488. 1943.
- A. M. Neubert. The effect of concentration on the composition and properties of rediluted apple juice. *Fruit Prod. Jour.* 23:166-169. 1944.

- +A. M. Neubert, M. K. Veldhuis, and W. J. Clore. The effect of harvest maturity on the canning quality of Western-grown Elberta peaches. Fruit Prod. Jour. 23(10):292-297, 315, 317. 1944.
- +A. M. Neubert and M. K. Veldhuis. Research shows effects of maturity and storage on canned Pacific NW freestones. West. Canner and Packer. 36(9):23, 53, 55. 1944.
- +A. M. Neubert and M. K. Veldhuis. Ripening Washington-grown Elberta peaches for canning. Fruit Prod. Jour. 23:357-360, 379, 381. 1944.
- +A. M. Neubert and M. K. Veldhuis. Clouding and sedimentation in clarified apple juice. Fruit Prod. Jour. 23(11):324-328. 1944.
- M. K. Veldhuis and A. M. Neubert. Freestone peach varieties for canning in Washington. Fruit Prod. Jour. 23:229-233. 1944.
- M. K. Veldhuis and A. M. Neubert. The effect of storage on the canning quality of Elberta peaches. Fruit Prod. Jour. 23:276-281. 1944.
- M. K. Veldhuis and A. M. Neubert. Cleaning vined canning peas by froth flotation--Removal of nightshade. West. Canner and Packer 36:18, 47. 1944.

MISCELLANEOUS

- *M. J. Blish. Wheat and flour technology. Fruit Prod. Jour. 20:284-286, 292. 1941.
- *C. H. Kunsman. Agricultural physics. Amer. Phys. Teacher 7:160-163. 1939.
- *+T. L. Swenson. Agricultural chemical research for war and peace. American Scientist 32:196-204. 1944.
- *W. B. Van Arsdel. Wartime shortages challenge chemists and engineers. Agr. Engin. 23(3):86-87. 1942.

U. S. PATENT

- H. C. Reitz. Proteinous composition and their process of production. U. S. Patent 2,344,267. March 15, 1944.

